ENHANCERS AND USES THEREOF

Applicant(s): Dongmei Xu et al. Filing Date: July 24, 2003

Page \_1\_ of \_9\_

Serial No.: Not Yet Known Customer No.: 21559

#### SEQ ID NO: 1

CCAGAAGGTA ATTATCCAAG ATGTAGCATC AAGAATCCAA TGTTTACGGG AAAAACTATG GAAGTATTAT GTGAGCTCAG CAAGAAGCAG ATCAATATGC GGCACATATG CAACCTATGT TCAAAAATGA AGAATGTACA GATACAAGAT CCTATACTGC CAGAATACGA AGAAGAATAC GTAGAAATTG AAAAAGAAGA ACCAGGCGAA GAAAAGAATC TTGAAGACGT AAGCACTGAC GACAACAATG AAAAGAAGAA GATAAGGTCG GTGATTGTGA AAGAGACATA GAGGACACAT GTAAGGTGGA AAATGTAAGG GCGGAAAGTA ACCTTATCAC AAAGGAATCT TATCCCCCAC TACTTATCCT TTTATATTTT TCCGTGTCAT TTTTGCCCTT GAGTTTTCCT ATATAAGGAA +11-> CCAAGTTCGG CATTTGTGAA AACAAGAAAA AATTTGGTGT AAGCTATTTT CTTTGAAGTA CTGAGGATAC AAGTTCAGAG AAATTTGTAA GTTTG

**ENHANCERS AND USES THEREOF** 

Applicant(s): Dongmei Xu et al.

Filing Date: July 24, 2003

Serial No.: Not Yet Known Customer No.: 21559

Page \_2\_ of \_9\_

Fig. 2A

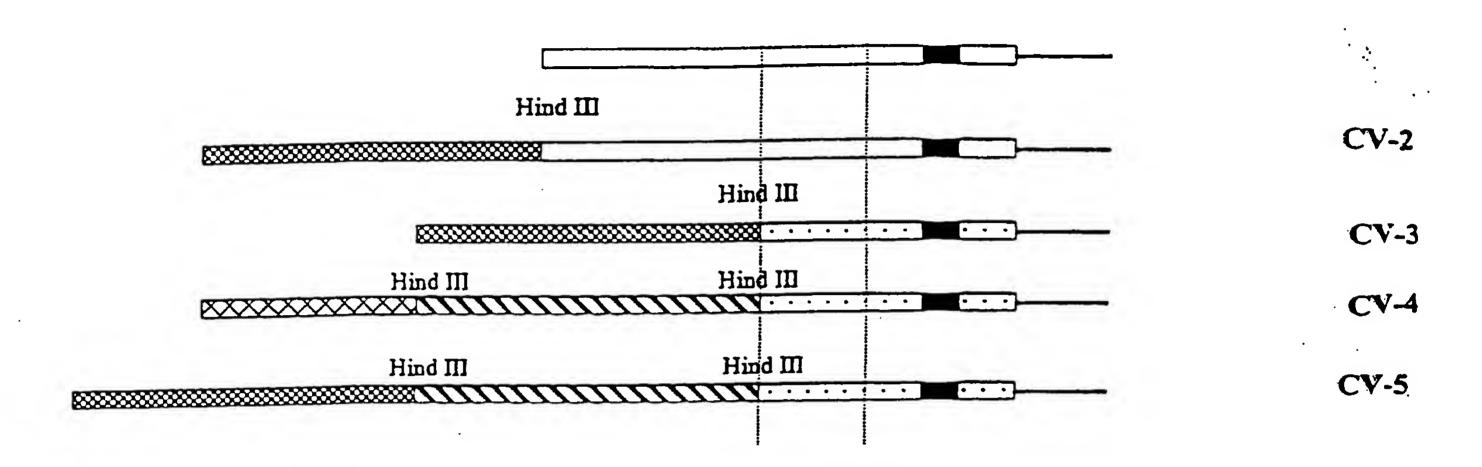
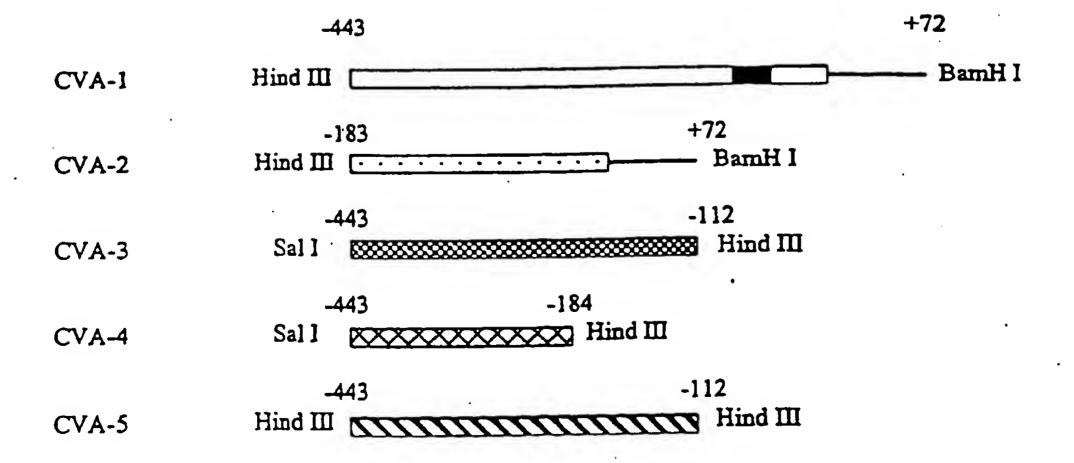


Fig. 2B



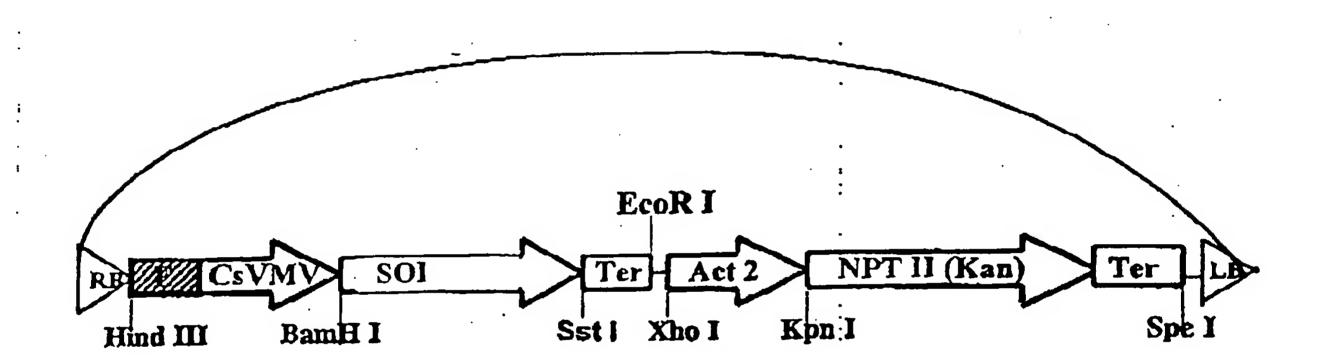
**ENHANCERS AND USES THEREOF** 

Applicant(s): Dongmei Xu et al.

Filing Date: July 24, 2003 Serial No.: Not Yet Known

Page \_3 of \_9\_ Customer No.: 21559

Fig. 3



Title: DUPLICATED CASSAVA VEIN MOSAIC VIRUS ENHANCERS AND USES THEREOF

Applicant(s): Dongmei Xu et al.

Filing Date: July 24, 2003

Page \_4\_ of \_9\_

Serial No.: Not Yet Known Customer No.: 21559

### CV-2 (SEQ ID NO: 2)

CCAGAAGGTA	ATTATCCAAG	ATGTAGCATC	AAGAATCCAA	TGTTTACGGG	AAAAACTATG
GAAGTATTAT	GTGAGCTCAG	CAAGAAGCAG	ATCAATATGC	GGCACATATG	CAACCTATGT
TCAAAAATGA	AGAATGTACA	GATACAAGAT	CCTATACTGC	CAGAATACGA	AGAAGAATAC
GTAGAAATTG	AAAAAGAAGA	ACCAGGCGAA	GAAAAGAATC	TTGAAGACGT	AAGCACTGAC
GACAACAATG	AAAAGAAGAA	GATAAGGTCG	GTGATTGTGA	AAGAGACATA	GAGGACACAT
GTAAGGTGGA	AAATGTAAGG	GCGGAAAGTA	ACAAGCTTCC	AGAAGGTAAT	TATCCAAGAT
GTAGCATCAA	GAATCCAATG	TTTACGGGAA	AAACTATGGA	AGTATTATGT	GAGCTCAGCA
AGAAGCAGAT	CAATATGCGG	CACATATGCA	ACCTATGTTC	AAAAATGAAG	AATGTACAGA
TACAAGATCC	TATACTGCCA	GAATACGAAG	AAGAATACGT	AGAAATTGAA	AAAGAAGAAC
CAGGCGAAGA	AAAGAATCTT	GAAGACGTAA	GCACTGACGA	CAACAATGAA	AAGAAGAAGA
TAAGGTCGGT	GATTGTGAAA	GAGACATAGA	GGACACATGT	AAGGTGGAAA	ATGTAAGGGC
GGAAAGTAAC	CTTATCACAA	AGGAATCTTA	TCCCCCACTA	CTTATCCTTT	TATATTTTTC
CGTGTCATTT	TTGCCCTTGA	GTTTTCCTAT	ATAAGGAACC	AAGTTCGGCA	TTTGTGAAAA
CAAGAAAAA	TTTGGTGTAA	GCTATTTTCT	TTGAAGTACT	GAGGATACAA	GTTCAGAGAA
ATTTGTAAGT	TTG				

#### Fig. 4A

#### CV-3 (SEQ ID NO: 3)

CCAGAAGGTA	ATTATCCAAG	ATGTAGCATC	AAGAATCCAA	TGTTTACGGG	AAAAACTATG
GAAGTATTAT	GTGAGCTCAG	CAAGAAGCAG	ATCAATATGC	GGCACATATG	CAACCTATGT
TCAAAAATGA	AGAATGTACA	GATACAAGAT	CCTATACTGC	CAGAATACGA	AGAAGAATAC
GTAGAAATTG	AAAAAGAAGA	ACCAGGCGAA	GAAAAGAATC	TTGAAGACGT	AAGCACTGAC
GACAACAATG	AAAAGAAGAA	GATAAGGTCG	GTGATTGTGA	AAGAGACATA	GAGGACACAT
GTAAGGTGGA	AAATGTAAGG	GCGGAAAGTA	ACAAGCTTGA	TAAGGTCGGT	GATTGTGAAA
GAGACATAGA	GGACACATGT	AAGGTGGAAA	ATGTAAGGGC	GGAAAGTAAC	CTTATCACAA
AGGAATCTTA	TCCCCCACTA	CTTATCCTTT	TATATTTTTC	CGTGTCATTT	TTGCCCTTGA
GTTTTCCTAT	ATAAGGAACC	AAGTTCGGCA	TTTGTGAAAA	CAAGAAAAA	TTTGGTGTAA
GCTATTTTCT	TTGAAGTACT	GAGGATACAA	CTTCAGAGAA	ATTTGTAAGT	TTG

Fig. 4B

ENHANCERS AND USES THEREOF

Applicant(s): Dongmei Xu et al.

Filing Date: July 24, 2003 Serial No.: Not Yet Known Page \_5\_ of \_9\_ Customer No.: 21559

CV-4 (SEQ ID NO: 4)

CCAGAAGGTA	ATTATCCAAG	ATGTAGCATC	AAGAATCCAA	TGTTTACGGG	AAAAACTATG
GAAGTATTAT	GTGAGCTCAG	CAAGAAGCAG	ATCAATATGC	GGCACATATG	CAACCTATGT
TCAAAAATGA	AGAATGTACA	GATACAAGAT	CCTATACTGC	CAGAATACGA	AGAAGAATAC
GTAGAAATTG	AAAAAGAAGA	ACCAGGCGAA	GAAAAGAATC	TTGAAGACGT	AAGCACTGAC
GACAACAATG	AAAAGAAGAA	GCTTCCAGAA	GGTAATTATC	CAAGATGTAG	CATCAAGAAT
CCAATGTTTA	CGGGAAAAAC	TATGGAAGTA	TTATGTGAGC	TCAGCAAGAA	GCAGATCAAT
ATGCGGCACA		ATGTTCAAAA			AGATCCTATA
CTGCCAGAAT	<del></del>			AAGAACCAGG	CGAAGAAAAG
AATCTTGAAG				AGAAGATAAG	
GTGAAAGAGA				AAGGGCGGAA	
<b>—</b> — — ·	<b>——</b> —————		TAGAGGACAC	ATGTAAGGTG	GAAAATGTAA
TTGATAAGGT				ACTACTTATC	
GGGCGGAAAG		11011111001111	<b>~_</b>	AACCAAGTTC	
AAAACAAGAA	AAAATTTGGT	GTAAGCTATT	TTCTTTGAAG	TACTGAGGAT	ACAACTTCAG
AGAAATTTGT	AAGTTTG				

Fig. 4C

# CV-5 (SEQ ID NO :5)

				2222200000
GTGAGCTCAG	CAAGAAGCAG	ATCAATATGC	GGCACATATG	CAACCTATGT
AGAATGTACA	GATACAAGAT	CCTATACTGC	CAGAATACGA	AGAAGAATAC
AAAAGAAGAA	GATAAGGTCG	GTGATTGTGA	AAGAGACATA	GAGGACACAT
AAATGTAAGG	GCGGAAAGTA	ACAAGCTTCC	AGAAGGTAAT	TATCCAAGAT
CAATATGCGG	CACATATGCA	ACCTATGTTC	AAAAATGAAG	AATGTACAGA
	GAATACGAAG	AAGAATACGT	AGAAATTGAA	AAAGAAGAAC
AAAGAATCTT	GAAGACGTAA	GCACTGACGA	CAACAATGAA	AAGAAGAAGA
				ATGTAAGGGC
	AGGTCGGTGA	TTGTGAAAGA	GACATAGAGG	ACACATGTAA
	AAAGTAACCT	TATCACAAAG	GAATCTTATC	CCCCACTACT
		GCCCTTGAGT	TTTCCTATAT	AAGGAACCAA
	AGAAAAAATT	TGGTGTAAGC	TATTTTCTTT	GAAGTACTGA
		G		
	GTGAGCTCAG AGAATGTACA AAAAAGAAGA AAAAGAAGAA AAATGTAAGG GAATCCAATG CAATATGCGG TATACTGCCA AAAGAATCTT GATTGTGAAA AAGCTTGATA GTAAGGGCGG TATTTTTCCG TGTGAAAACA	GTGAGCTCAG CAAGAAGCAG AGAATGTACA GATACAAGAT AAAAAGAAGA ACCAGGCGAA AAAAGAAGAA GATAAGGTCG AAATGTAAGG GCGGAAAGTA GAATCCAATG TTTACGGGAA CAATATGCGG CACATATGCA TATACTGCCA GAATACGAAG AAAGAATCTT GAAGACGTAA GATTGTGAAA GAGACATAGA AAGCTTGATA AGGTCGGTGA GTAAGGGCGG AAAGTAACCT TATTTTTCCG TGTCATTTT TGTGAAAACA AGAAAAAATT	GTGAGCTCAG CAAGAAGCAG ATCAATATGC AGAATGTACA GATACAAGAT CCTATACTGC AAAAAGAAGA ACCAGGCGAA GAAAAGAATC AAAAGAAGAA GATAAGGTCG GTGATTGTGA AAATGTAAGG GCGGAAAGTA ACAAGCTTCC GAATCCAATG TTTACGGGAA AAACTATGGA CAATATGCGG CACATATGCA ACCTATGTTC TATACTGCCA GAATACGAAG AAGAATACGT AAAGAATCTT GAAGACGTAA GCACTGACGA GATTGTGAAA GAGACATAGA GGACACATGT AAGCTTGATA AGGTCGGTGA TTGTGAAAGA GTAAGGGCGG AAAGTAACCT TATCACAAAG TATTTTCCG TGTCATTTTT GCCCTTGAGT TGTGAAAACA AGAAAAAATT TGGTGTAAGC	CAATATGCGG CACATATGCA ACCTATGTTC AAAAATGAAG TATACTGCCA GAATACGAAG AAGAATACGT AGAAATTGAA AAAGAATCTT GAAGACGTAA GCACTGACGA CAACAATGAA GATTGTGAAA GAGACATAGA GGACACATGT AAGGTGGAAA AAGCTTGATA AGGTCGGTGA TTGTGAAAGA GACATAGAG GTAAGGGCGG AAAGTAACCT TATCACAAAG GAATCTTATC TATTTTCCG TGTCATTTT GCCCTTGAGT TTTCCTATAT TGTGAAAACA AGAAAAAATT TGGTGTAAGC TATTTTCTTT

ENHANCERS AND USES THEREOF

Applicant(s): Dongmei Xu et al. Filing Date: July 24, 2003
Page \_6\_ of \_9\_

Serial No.: Not Yet Known Customer No.: 21559

## CV-6 (SEQ ID NO: 6)

CCAGAAGGTA	ATTATCCAAG	ATGTAGCATC	AAGAATCCAA	TGTTTACGGG	AAAAACTATG
GAAGTATTAT	GTGAGCTCAG	CAAGAAGCAG	ATCAATATGC	GGCACATATG	CAACCTATGT
TCAAAAATGA	AGAATGTACA	GATACAAGAT	CCTATACTGC	CAGAATACGA	AGAAGAATAC
GTAGAAATTG	AAAAAGAAGA	ACCAGGCGAA	GAAAAGAATC	TTGAAGACGT	AAGCACTGAC
GACAACAATG	AAAAGAAGAA	GATAAGGTCG	GTGATTGTGA	AAGAGACATA	GAGGACACAT
GTAAGGTGGA	AAATGTAAGG	GCGGAAAGTA	AC <b>AAGCTT</b> GT	TACTTTCCGC	CCTTACATTT
TCCACCTTAC	ATGTGTCCTC	TATGTCTCTT	TCACAATCAC	CGACCTTATC	TTCTTCTTTT
CATTGTTGTC	GTCAGTGCTT	ACGTCTTCAA	GATTCTTTTC	TTCGCCTGGT	TCTTCTTTTT
CAATTTCTAC	GTATTCTTCT	TCGTATTCTG	GCAGTATAGG	ATCTTGTATC	TGTACATTCT
TCATTTTTGA	ACATAGGTTG	CATATGTGCC	GCATATTGAT	CTGCTTCTTG	CTGAGCTCAC
ATAATACTTC	CATAGTTTTT	CCCGTAAACA	TTGGATTCTT	GATGCTACAT	CTTGGATAAT
TACCTTCTGG	AAGCTTGATA	AGGTCGGTGA	TTGTGAAAGA	GACATAGAGG	ACACATGTAA
GGTGGAAAAT	GTAAGGGCGG	AAAGTAACCT	TATCACAAAG	GAATCTTATC	CCCCACTACT
TATCCTTTTA	TATTTTTCCG	TGTCATTTTT	GCCCTTGAGT	TTTCCTATAT	AAGGAACCAA
GTTCGGCATT	TGTGAAAACA	AGAAAAAATT	TGGTGTAAGC	TATTTTCTTT	GAAGTACTGA
GGATACAACT	TCAGAGAAAT	TTGTAAGTTT	G		

ENHANCERS AND USES THEREOF

Applicant(s): Dongmei Xu et al. Filing Date: July 24, 2003
Page \_7\_ of \_9\_

Serial No.: Not Yet Known Customer No.: 21559

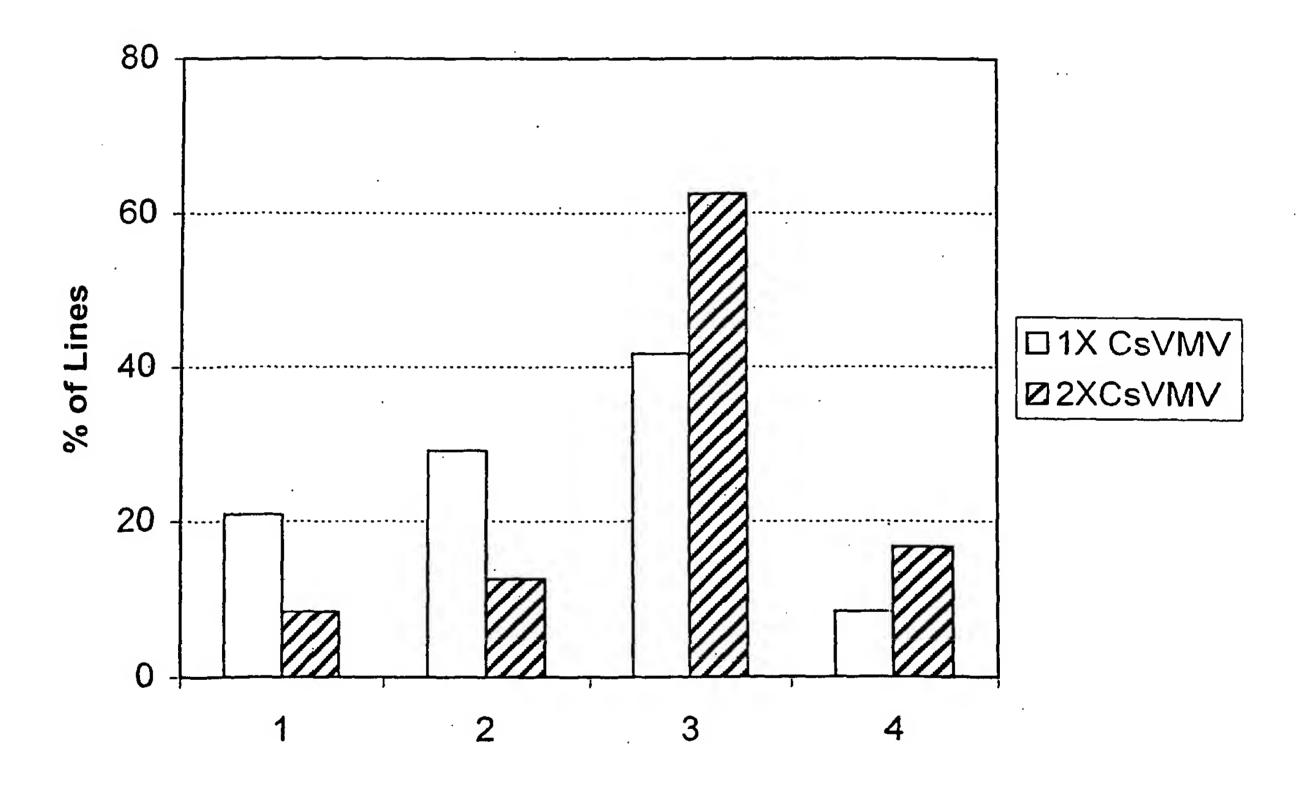


Fig. 5

**ENHANCERS AND USES THEREOF** 

Applicant(s): Dongmei Xu et al. Filing Date: July 24, 2003
Page \_8\_ of \_9\_ Serial No.: Not Yet Known Customer No.: 21559

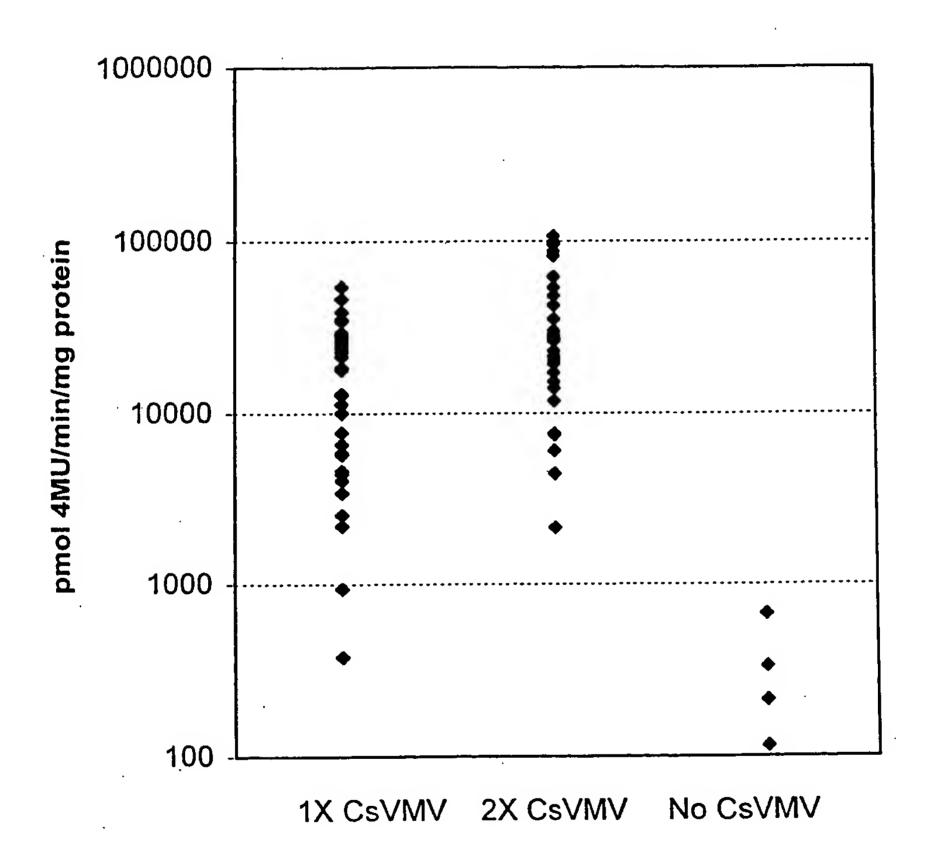


Fig. 6

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Applicant(s): Dongmei Xu et al.

Filing Date: July 24, 2003

Serial No.: Not Yet Known Customer No.: 21559

Page \_9\_ of \_9\_ Customer No.:

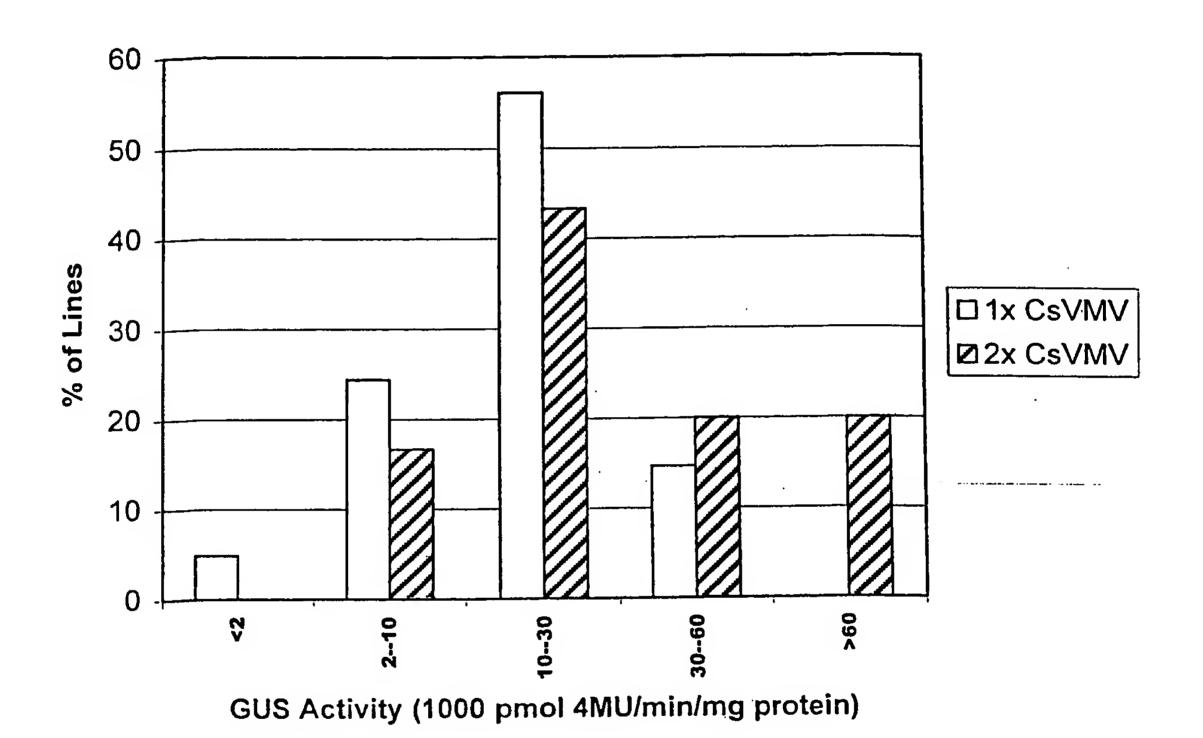


Fig. 7